

Genetic Counselling and Marriage Stability Among Married Couples in Ondo State Nigeria

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Abstract

The rationale behind the establishment of any family is to share skittish moments and different periods together. Things falling apart, minatory and divorce are never words to be minced in marital relationship or marriage. The avoidance of genetic counselling amounts to stoning a marital glass house intentionally, with series of breaks (fights) that will eventually lead to divorce. In this paper, an attempt is made at explaining marriage, genetic counselling, sex determination, sickle cell anaemia, Rhesus factor, albinism concerns and implication of these concerns for family stability. The paper, however, suggests some measures to achieving marriage stability through genetic counselling. Hence, it called for constitutionalizing compulsory genetic counselling before establishing any family. More professional genetic counsellors are needed in all sectors to effectively prevent marital instability adversely affecting Nigeria negatively.

Keywords: Genetic Counselling, marriage stability, married couples, Implication, Nigeria

Introduction

Genetics Counselling dates back to the creation of man, though with improvement and technological advancement. Oniye (2008) opined that love is the ideal thing, marriage is a real thing; a confusion of the real with the ideal never goes unpunished. Instability into marriages and the resultant impact on all family members are among the most pressing problems facing the society today (Adegoke & Esere, 1998; Esere & Idowu 2000). Marriage in all aspect is a life investing institution beyond sexual relationship that gives life a reward, social fulfilment, procreation, mutual benefits, burden bearing and all-purpose legal recognition. Denga (1990) emphasized that marriage is a partnership contract without an escape clause. The striking note here is that a successful marriage connotes a life-long arrangement where couples have to permanently survive a multitude of demanding situations such as illness, financial problem, the attractiveness of each other and so on. Yahyah (2008) stated that despite the usefulness of marriage, statistical data indicates that marriages are being threatened by rampant cases of divorce. Yahyah (2008) further cited the work of Esere and Adegoke (1999) that in Nigeria 20% of the marriages conducted yearly ended up in divorce or separation. Similarly, in the USA about 100,000 people over the age of 55 years divorce each year (US Bureau of Census, 2001).

Latha (2014) reported that man's most precious treasure is genetic heritage which guides the health and proper development of future generations. He was of the opinion that genetic counselling is the process by which patients or relatives at risk of a disorder that may be hereditary are advised of the aftermaths of the disorder, the probability of developing and transmitting it and of the ways in which it may be prevented or ameliorated. It is also the process of communication and education which addresses concerns on issues relating to the development or transmission of hereditary disorder.

The issue of marriage instability among married couples may be traced to genetic counselling as a determinant factor. Lack of genetic counselling has been making marriages to be dogged with problems and bomb shells adversely affecting the society at large. Genetic counselling is never limited to a particular ethnic group, religious affiliation, age, literacy etc. Genetic counselling is appropriate in marriages on the issues of spousal selection, family pedigree, rhesus factor, miscarriages, pregnancy, blood group, intellectual capabilities, sickle cell anaemia, colour blindness, haemophilia situation, handicapped conditions, impairment, disorders, abnormal behaviours, deviations, infections, still birth, sex determination, detection of paternity just to mention but few. Majority of marriages which steps out of this life's real kick headed towards a tornado like frenzy state called marriage instability.

Marital suspicion lives in a nicer home instead of marital trust when genetic counselling is dropped in the silent bin of negligence. This is in submission with the opinion of Wayas (2009) who said marital suspicion appears to underlie many social interactions. Thus, occupying an important role in various efforts to account for the stability or instability of a wide variety of human relationships. Perceived marital suspicion is the act of suspecting someone, especially in doing something wrong, on little evidence or without proof (a belief to the disadvantages of another, accompanied by doubt).

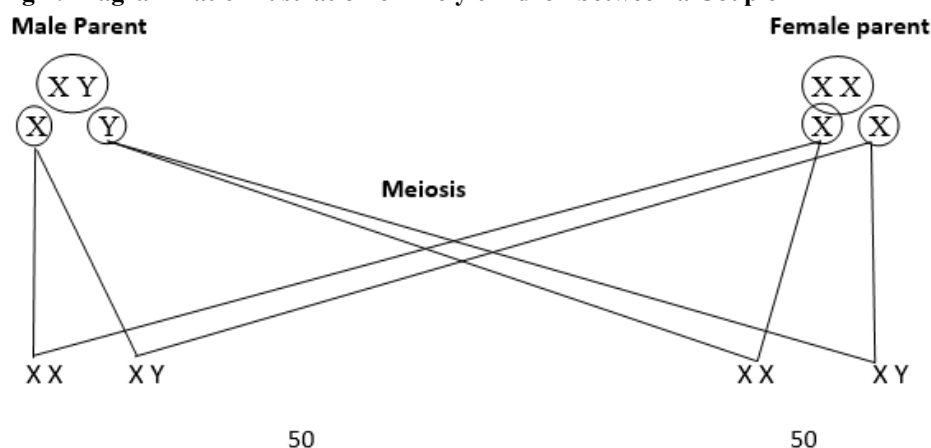
The true picture of any marriage on the planet will be drawn boldly on minds of the couples, reading the templates always and painting the diagram (i.e. the result of genetic counselling) in order to enjoy and not endure the sacred marriage institution. Having genetic counselling in a marital relationship further strengthens healthy communication skills needed to over lift a marriage on a plateau of life. David and John (2003) said communication involves the ability to pay attention to what others are thinking or feeling. Communication is not just talking, but

listening to what others have to say, communication is the key to unlocking marital problems that can lead to marriage instability. It helps in establishing emotionally fulfilling relationship and reveals couple's deepest feelings and their underlying needs (Davidson and Moore, 19996). The avoidance of genetic counselling in any marital relationship equals to marital relationship illiteracy, hypochondria and miasma. Dick (2004) stated that marriages of parent of children with development disabilities have often been portrayed as dysfunctional, likely to end in divorce. Unresolved grief and extreme demands associated with raising a child with a disadvantage result in extremely high levels of stress which, in turn produce dysfunctional marriages and high rates of divorce. Leimbach (2006) recorded the divorce rate among parents of children with autism as high as four out of five marriages. Ziolk (1991) emphasized the high rate of marital discard among couples probably due to lack of genetic counselling. Feelings of low self-esteem, helplessness, resentment over excessive demands on time and the burden of financial responsibility are prevalent in such families and place a great strain upon the marriage. Parents or families of children with disabilities are burdened with feelings of guilt, loneliness and despair leading to broken marriages in the families with medically fragile children.

Sex determination Concern

Bunch of blames have been pinned on women only for giving birth to female children. Many women have received the greatest beatings of their lives for giving birth to female children only. They are the only culprits of unnecessary attacks. From the below illustration, females have two sex chromosomes (XX) and XY in males. It is so sure that the composition of any woman is to release X chromosome which determines femaleness, while the chromosomes released by the male (either X or Y) will determine the sex of the offspring in an ideal situation. Males are XY and females are XX in human beings. The illustration above shows there is usually an equal (50/50) chance of the offspring to be a male or female.

Fig 1: Diagrammatic Illustration of likely children between a Couple

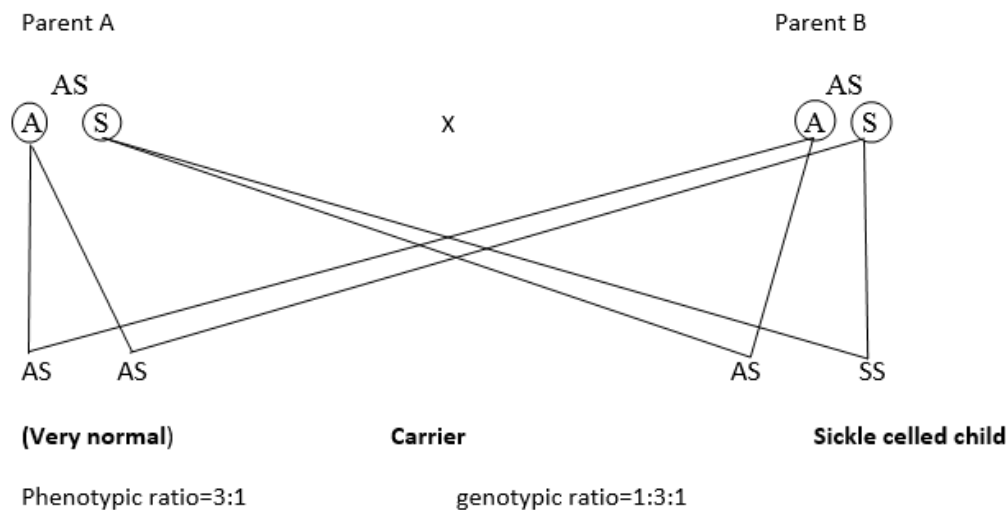


Sadly, too many couples do not understand how sex determination works. As a result, one or both spouses unknowingly refuse to close their exits. Somewhere in the back of their minds, they still think there is a way out of the marriage, if it does not seems to work out. Unfounded insecurities or resolved anger over pretty issues (e.g. sex determination) can crack and even break the strongest marital foundation, if genetic counselling is not sought immediately. Often couples in the storm of stress caused by determination of offspring sex will use genetic counselling as the last ditch effort to save their marriage. They face off in the counsellor's office and pour out their feelings of bitterness and sadness. Couples seeking professional counselling should understand that it is not a quick fix for all marital problems. In fact, things may get more troublesome as couples openly discuss these issues; however, couples should retain their resolve to overcome these challenges. The professional counsellor will act as a facilitator, assisting you and your spouse in discussion with one another (Dollar and Dollar 2002)

Sickle Cell concern

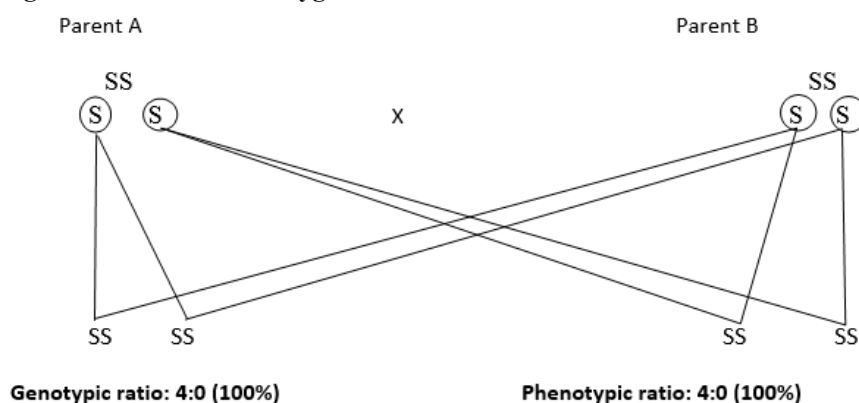
Sickle cell disease is a condition that is inherited. This is an example of autosomal recessive condition. For an individual to be affected by an autosomal recessive condition, he/she must have two traits for that condition, one inherited from the mother and one inherited from the father. Genetic counselling is required when both couples are found to be carriers and/or sickle celled. During a genetic counselling session, many questions can be answered, such as explaining the inheritance of sickle cell conditions, teaching more about the disease and helping a couple understand their risks and reproductive options. Every married couple with the history of sickle cell anaemia disorder as a matter of fact should seek genetic counselling to prevent re- occurrence in the family tree. For instance, if a couple with heterozygous traits of sickle cell anaemia marries each other; there is every probability that out of four children, one will have sickle cell anaemia.

Fig 2 Diagrammatic illustration of carrier parents



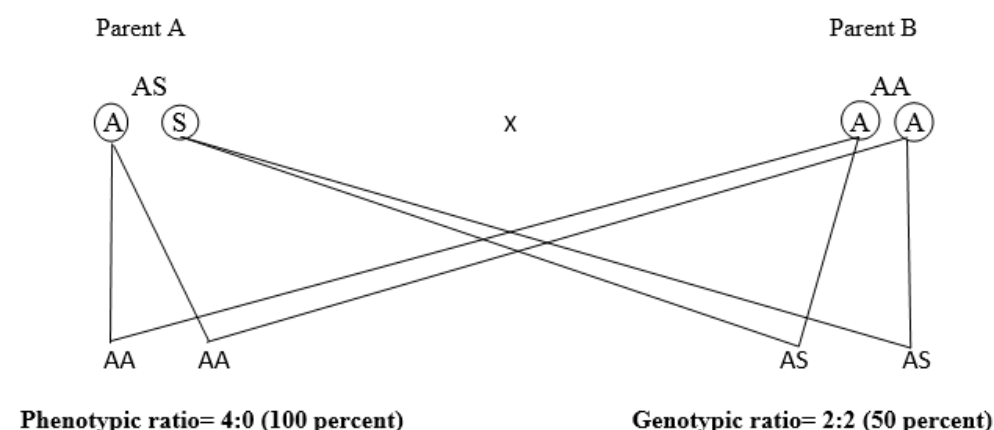
Parents who have homozygous recessive traits are better counselled not to marry each other; because there is 100 percent probability that “all” the children given birth to by homozygous sickle celled parents will be sickle-celled.

Fig 3: Parents with homozygous recessive traits



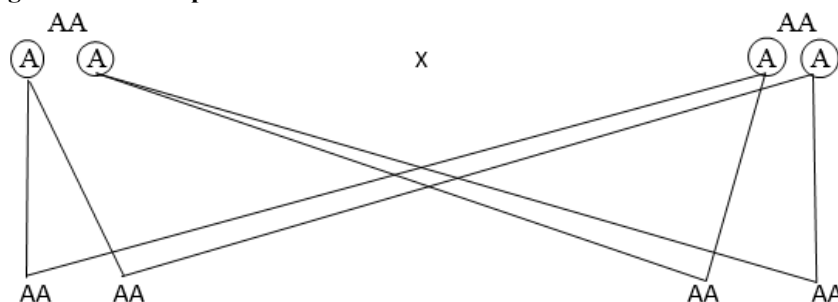
It is helpful to state that genetic counsellors would better advise both intending couples not to see love as blind, but something that can be worked out, so as to prevent having children with serious clinical diseases. If this precaution is not taken immediately, the home will be wrecked with a shaky foundation that will certainly lead to divorce, stress and wrong attributions.

Fig 4: Diagrammatic illustration for only one parent who is a carrier of sickle cell.



In this kind of situation, all the children will be normal, but only two of the four children will be carriers of sickle cell anaemia. The couple in Fig. 4 above might be advised to go into marriage, bearing in mind the probability of having fifty percent (50%) children that are carriers of sickle cell anaemia. Genetic counselling guides against tough times that can prevent marriage from prospering.

Fig 5 Non-carrier parents



Phenotypic ratio= 4:0 (100%)

Genotypic ratio= 4:0 (100%)

The above intending couples in fig.5 are the best match ever. Their children will be normal and non-carriers with no clinical diseases associated with sickle cell anaemia. To achieve this lifelong success in marriage, genetic counselling is a beacon of light needed to chase away ignorance that could be avoided and prevented.

Rhesus (Rh) factor concern

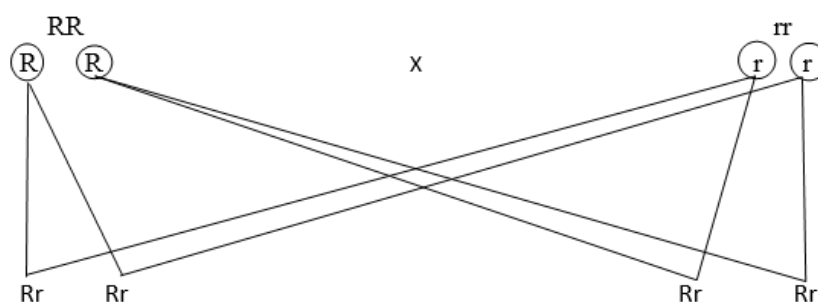
Rhesus factor is a protein found on red blood cells. Though Rhesus incompatibility is a condition that occurs majorly during pregnancy but this condition is very injurious to the stability of a marriage. The presence of Rhesus antigen on the surface of red blood cells can be referred to as Rhesus positive (Rh+), while its absence is Rhesus negative. Rhesus factor runs in the family tree/pedigree. The phenotypic and genotypic effects of Rhesus factor could not be facially ascertained, but the effects usually appear during pregnancy. Rhesus factor presents itself in homozygous and heterozygous conditions. Genetic counselling is a vital ingredient in structuring any family that will last for generations. Emphatically, Rhesus incompatibility is preventable by seeking a professional touch (i.e. genetic counselling) which is solution oriented and salubrious.

Rhesus incompatibility causes the production of anti-Rhesus antibodies causing agglutination or haemolytic anaemia which could result in miscarriage. The destruction of baby's red blood cells build up bilirubin which is a chemical by-product of the destroyed red blood cells. Genetic counselling helps prevent the rhesus incompatibility and other bad effect of bilirubin such as brain damage, yellowing of the baby's skin, lethargy and low muscle tone that could affect the baby after birth. Married couples seeking genetic counselling are counselled and referred for further medical attention which consists of injection of RH immune globulin, blood transfusions, hydrating fluids and phototherapy. Genetic counselling assists pregnant mothers to seek counselling especially during the first trimester of pregnancy. Figure 6 below shows inheritance of rhesus blood groups and genetic counselling needs of parent with Rhesus factor concern.

Fig 6: Diagrammatic illustration of homozygous positive and homozygous negative parents

Parent A

Parent B

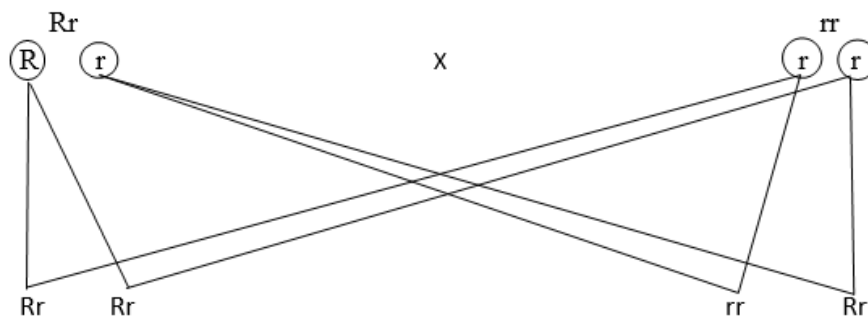


Phenotypic ratio 4:0

Genotypic ratio 4:0

The above illustration shows that all the children will be rhesus positive. Though the children are heterozygote, they will be healthy no matter their gender. With the above situation, there is need for proper monitoring of the children by a professional genetic counsellor in order to be successful in spousal selection and to build an enduring marital relationship.

Fig 7 Heterozygous positive father and homogenous negative mother



Phenotypic ratio 1:1

Genotypic ratio 1:1

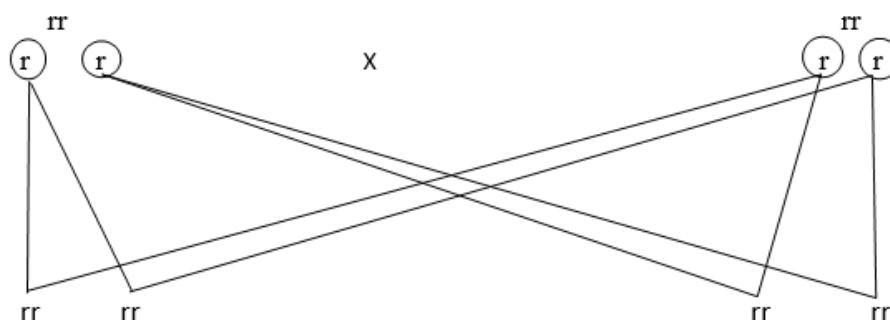
The above couple are guided not to venture into the founding an unbalanced family structure that will eventually collapse. The result from the above structure shows 50percent (i e equal) chance of having a Rhesus positive or a Rhesus negative children. Medically, the above would-be couple is not advisable to go into marriage. Though there is an adage that says love is blind, but technologically a widely open eye sees genuine love devoid of innuendoes.

Fig 8 Rhesus negative father and Rhesus negative mother

(rr-ve father)

x

(rr -ve Mother)



The above illustration demands total discouragement. If this type of marriage is established, divorce will be the end result. Marriage by both partners with Rhesus negative factor, is nothing but gate opened to catastrophe, fighting and flash –flood warning of divorce. The above couple (fig. 8) should never get married at all, because the marriage will be bedevilled by miscarriages. There is every probability that the couple might not be able to have a child in the marriage. Culturally, miscarriage is synonymous to childlessness. By visiting a genetic counsellor, barrenness resulting from Rhesus factor concern would be overcome, thereby making marriage more efficient than spooky coexistence. Genetic counselling is the need of every one and all homes that need enduring complement, happiness, trust and successful family set-up.

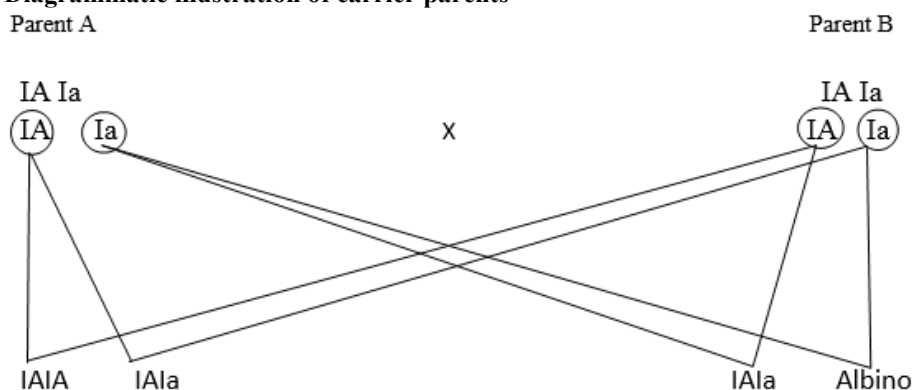
Albinism Concern

Albinism is a genetically inherited autosomal recessive physical condition where there is a storage or absence of the melanin pigment which affect the eyes, hair and skin albinos are dogged with series of complications like eye problems skin cancer and blindness (Nasr, 2010). Records have shown that the prevalence of albinos is high in black countries than other countries. Estimate in Africa range from one in 5000 to one in 15000 with approximately one in 4000 individual in South Africa (Hong, Zeeb& Repachioli 2006)

Majorly, albinism is caused by mutation causing various kinds of problems, like oculocutaneous, chediak-Higashi Syndrome, ocular, Hermansky-pudlak syndrome albinisms. Black culture persecutes and sees albinos as outcasts that do not deserve a purposeful place in the society. Individuals who are albinos are labelled with rash appellations such as ghost, evil ancestral being, incomplete being and the never-do-wells. It is also the belief of black culture that albinos do not live long, this is a wrong notion that can cause marital instability between couple who have been co- existing happily for several years.

The above mentioned symptoms should bring the passion to seek genetic counselling. Parents who are phenotypically normal might be genetically carrying albinism. After giving birth to an albino child, attribution sets in causing the family to derail from the initial agreement of for better, for worse. Albinism concern is 100 percent preventable by creating a brighter future through genetic counselling. Couples with low pigment or hypo-pigmentation in their family pedigree need the fortune of genetic counselling to jointly hold their marital hands without raising them against each other till eternity.

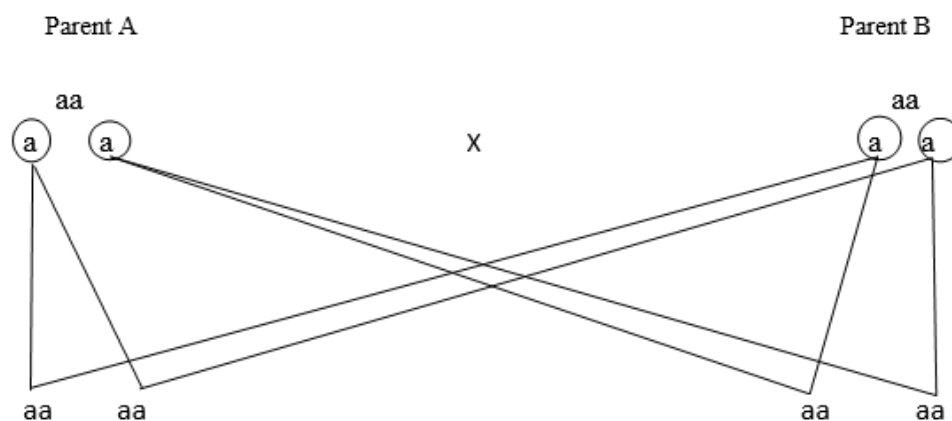
Fig.9: Diagrammatic illustration of carrier parents



Phenotypic ratio: 3:1 genotypic ratio 1:2:1

The above illustrated couple indicated that out of four children, three will be normal while only one child (25%) will be an albino. Genetic counselling prevents this kind of marital relationship so as to prevent offspring with hypopigmentation or albino.

Fig. 10: Diagrammatic illustration of homozygous situation of Albino Parents



The above represented couple in fig. (10) should be totally prevented from marrying each other. There is every probability that the above marriage will produce albino children. Both parents would have themselves contributing to the bearing of albino. Seeking genetic counselling afford the two couple the ample opportunity of what all their children will look like. However, albinos need not to be mutilated or killed by parents.

IMPLICATION FOR COUNSELLING

Counselling has various guidance services that could be used to assist Nigeria couples in living happily. There is the need for compulsory sex and marital counselling before establishing any home. Infact, starting from spousal selection till death do couples apart, the place of genetic counselling extend to so many filial generations

Active participation of genetic counselling in enlightenment and sensitization of couples clinging to the outmoded shibboleths of marriage myths is of paramount importance. Several enlightenment programmes by genetic counsellors will be a great relief to the country, because an unstable home produces an unstable nation. To achieve reasonable 90 percent of happy families, more Counsellors should be trained to genetically acquaint with this new trend behind unstable marriages in Nigeria. On the part of all tiers of government couples should be certified by genetic Counsellors and medical personnel before its establishment

Conclusion

In this era of globalization and technological advancement, there is no doubt that the stability of marriages through adequate genetic counselling is a panacea that can be harped on to solving marital problems. Stability of marriages in this country will receive a boost by giving genetic counselling a cutting edge that will blow a wind of true happiness across prospective and founded homes needed to shape the country on silver platter. Every individual must be passionate to see genetic counselling as determinant factor that needs to remain in the family, while the family pedigree and the nation as a whole will always be good and better.

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